In the claims:

1. (Previously presented) A method of operating an internal combustion engine in which fuel is combusted during a working stroke in at least one combustion chamber, comprising the steps of determining by a pressure sensor a gas pressure acting in the combustion chamber during the working stroke; monitoring a plausibility of a measuring variable obtained from a signal of the pressure sensor; determining, from a plurality of actual operational variables of the internal combustion engine, which are not based on the signal of the pressure sensor, a reference variable corresponding to the measuring variable; comparing the measuring variable with the reference variable; and by this comparison checking the plausibility of the signal of the pressure sensor and the measuring variable obtained from it, further comprising determining time courses of the measuring variable and the reference variable within one working stroke and comparing the both courses with one another, and determining a deviation of the measuring variable from the reference variable in equal time locations of the both courses, forming a sum value from said deviation; and comparing the sum value with at least one limiting value.

Claim 2 cancelled.

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3. (previously presented) A method as defined in claim 1;

and further comprising determining a maximum deviation of the measuring

variable from the reference variable and comparing the maximum

deviation with at least one limiting value.

Claim 4 cancelled.

5. (original) A method as defined in claim 1; and further

comprising, depending on a result of the plausibility checking, performing

a step selected from the group consisting of an input in an error storage,

an information to a consumer of the internal combustion engine, and both.

6. (original) A method as defined in claim 1; and further

comprising performing the comparing of the measuring valuable with the

reference valuable for a plurality of working strokes; and recognizing a

non-plausibility of the signal of the pressure sensor or the measuring value

derived from it when the comparing during a predetermined number of the

working strokes leads to a corresponding result.

7. (Previously presented) A method of operating an internal

combustion engine in which fuel is combusted during a working stroke in

at least one combustion chamber, comprising the steps of determining by

a pressure sensor a gas pressure acting in the combustion chamber

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during the working stroke; monitoring a plausibility of a measuring variable

obtained from a signal of the pressure sensor; determining, from a plurality

of actual operational variables of the internal combustion engine, which

are not based on the signal of the pressure sensor, a reference variable

corresponding to the measuring variable; comparing the measuring

variable with the reference variable; and by this comparison checking the

plausibility of the signal of the pressure sensor and the measuring variable

obtained from it,

further comprising using as the measuring variable and the reference

variable correspondingly a heat quantity which is normalized on a heat

quantity supplied as a whole during a working stroke; determining the

measuring variable from the signal of the pressure sensor on a basis of

thermodynamic equations; and determining the reference variable by

means of a vibe function.

Claim 8 cancelled.

9. (currently amended) An electrical storage medium for a

device of an internal combustion engine selected from the group

consisting a control device, a regulating device, and both, the electrical

storage medium storing a computer program ~~which is programmable for~~

~~use into~~ perform a method of operating an internal combustion engine in

which fuel is combusted during a working stroke in at least one

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combustion chamber, comprising the steps of determining by a pressure sensor a gas pressure acting in the combustion chamber during the working stroke, monitoring a plausibility of a measuring variable obtained from a signal of the pressure sensor, determining, from a plurality of actual operational variables of the internal combustion engine which are not based on the signal of the pressure sensor, a reference variable corresponding to the measuring variable, comparing the measuring variable with the reference variable; and by this comparison checking the plausibility of the signal of the pressure sensor and the measuring variable obtained from it, wherein the method further comprises determining time courses of the measuring variable and the reference variable within one working stroke and comparing the both courses with one another, and determining a deviation of the measuring variable from the reference variable in equal time locations of the both courses, forming a sum value from said deviation; and comparing the sum value with at least one limiting value.

10. (Currently amended) A device for an internal combustion engine selected from the group consisting of a control device, a regulating device, and both, said device being programmed to perform programmable for use in a method of operating an internal combustion engine in which fuel is combusted during a working stroke in at least one combustion chamber, comprising the steps of determining by a pressure

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sensor a gas pressure acting in the combustion chamber during the working stroke; monitoring a plausibility of a measuring variable obtained from a signal of the pressure sensor; determining, on the basis of a plurality of actual operational variables of the internal combustion engine which are not based on the signal of the pressure sensor, a reference variable corresponding to the measuring variable; comparing the measuring variable with the reference variable; and by this comparison checking the plausibility of the sensor of the signal of the pressure sensor and the measuring variable obtained from it, the method further comprising determining time courses of the measuring variable and the reference variable within one working stroke and comparing the both courses with one another, and determining a deviation of the measuring variable from the reference variable in equal time locations of the both courses, forming a sum value from said deviation; and comparing the sum value with at least one limiting value.

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